

REMARKS

In an Office action dated June 6, 2002, 2-4, 8 and 12-14 were rejected under 35 U.S.C. 112 second paragraph as being indefinite. Applicant has amended claims 2-4, 8 and 12-14 to correct the problems.

Claims 1-3, 5, 6, 9, 13-15 and 17 were rejected under 35 U.S.C. 102(b) as being anticipated by Hauser, US Patent 5,485,828. Claims 4, 8 and 12 were held allowable if rewritten in independent form and correcting the claims to overcome Examiner objections under 35 U.S.C. 112. Claims 7, 10, 11 and 16 were objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In response, Applicant has rewritten 4, 10 and 16 in independent form and respectfully submits that as amended those claims are patentable. In addition, Applicant has amended original independent claims 1 and 15 to claim at least two or more driver elements or at least two or more lenses. The Hauser reference only describes one electromechanical transducer focused by a single lens and thus does not disclose amended claims 1 and 15. Furthermore, Applicant respectfully submits that Hauser does not disclose or suggest inserting the plurality of driver elements in an orifice as claimed in dependent claim 13.

In view of the preceding amendments and remarks, Applicant believes that independent claims 1, 4, 10, 15 and 16 are allowable over the cited prior art references. All remaining claims depend on those independent claims and are thus also believed to be allowable. Allowance of all pending claims at the Examiner's earliest convenience is hereby respectfully requested. In the event the Examiner considers personal contact

advantageous to the disposition of this case, Applicant requests that Examiner contact the undersigned.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE:

IN THE CLAIMS:

1. (amended) A method of delivering pharmaceutical product comprising the operations of:

depositing a pharmaceutical product across a plurality of driver elements,
the plurality of driver elements including at least two drive elements;

positioning the plurality of driver elements within four inches of a human orifice;

delivering electrical power to the plurality of driver elements causing the plurality of driver elements to deliver acoustic energy to the pharmaceutical product, the acoustic energy focused by acoustic lenses to cause ejection of droplets of pharmaceutical product into the human orifice.

2. (amended) The method of claim 1 wherein the plurality of driver elements are piezo-electric transducers.

3. (amended) The method of claim 1 wherein all driver elements in the plurality of driver elements are simultaneously provided with electrical energy to cause simultaneous ejection of multiple droplets of pharmaceutical product.

4. (amended) A [The] method of [claim 1] delivering pharmaceutical product comprising the operations of:

depositing a pharmaceutical product across a plurality of driver elements;

positioning the plurality of driver elements within four inches of a human orifice;

delivering electrical power to the plurality of driver elements causing the plurality of driver elements to deliver acoustic energy to the pharmaceutical product, the acoustic energy focused by acoustic lenses to cause ejection of droplets of pharmaceutical product into the human orifice wherein each driver element in the plurality of driver elements is provided with electrical energy within a five second time interval to cause ejection of multiple droplets of pharmaceutical product over the five second or less time interval.

8. (amended) The method of claim 7 wherein the spherical molded plastic lenses are formed on a plastic substrate and the plurality of driver[s] elements are bonded to the plastic substrate.

10. (amended) [The] A method of [claim 1] delivering pharmaceutical product comprising the operations of:

depositing a pharmaceutical product across a plurality of driver elements;

positioning the plurality of driver elements within four inches of a human orifice;

delivering electrical power to the plurality of driver elements causing the plurality of driver elements to deliver acoustic energy to the pharmaceutical product, the acoustic energy focused by acoustic lenses to cause ejection of droplets of pharmaceutical product into the human orifice wherein [the] RF energy output by the driver elements has

a frequency higher than 300MHz in order to generate a droplet sizes smaller than 6 micrometers.

12. (amended) The method of claim [1] 9 wherein the RF energy generates capillary droplets of pharmaceutical product, each droplet having a diameter less than 10 micrometers.

13. (amended) The method of claim 1 wherein the orifice is a mouth, the method further comprising the operation of:

opening the mouth; and

inserting the plurality of driver elements into the mouth before delivering electrical power to the plurality of drive elements.

14. (amended) The method of claim 1 wherein the orifice is a nostril of a nose, the method further comprising the operation of:

inserting the plurality of driver elements into the nose before delivering electrical power to the plurality of driver elements.

15. (amended) A method of delivering pharmaceutical product comprising the operations of:

distributing a pharmaceutical product over a plurality of lenses the plurality of lenses including at least two lenses; and

focusing acoustic energy from the plurality of lenses to cause ejection of droplets of pharmaceutical product.

16. (amended) [The] A method of [claim 15 further] delivering pharmaceutical product comprising the operation of:

distributing a pharmaceutical product over a plurality of lenses;

detecting the velocity of ambient air; and

causing the ejection of droplets when the velocity of ambient air reaches a critical air speed by focusing acoustic energy from the plurality of lenses to cause ejection of droplets of pharmaceutical product.